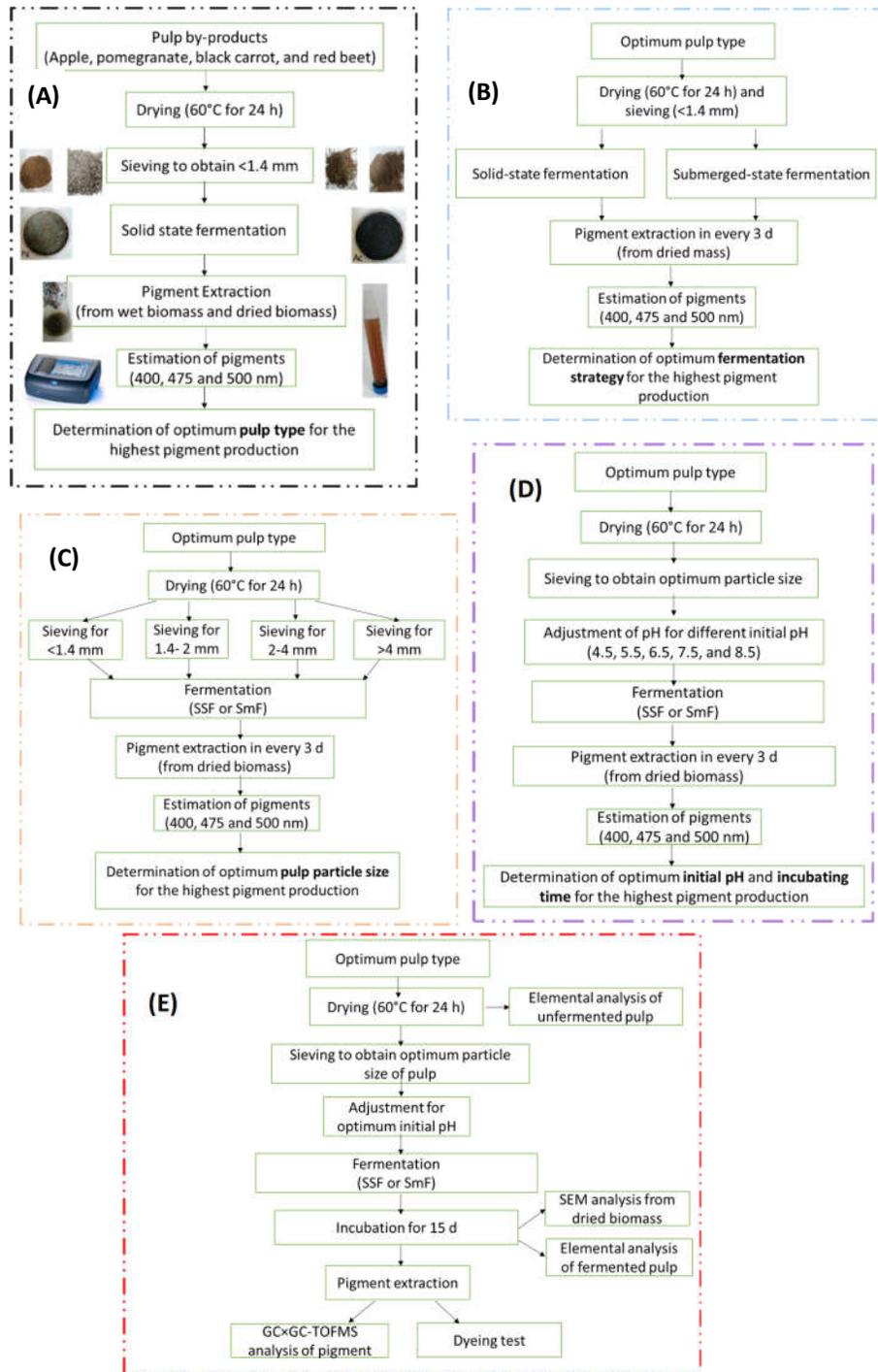
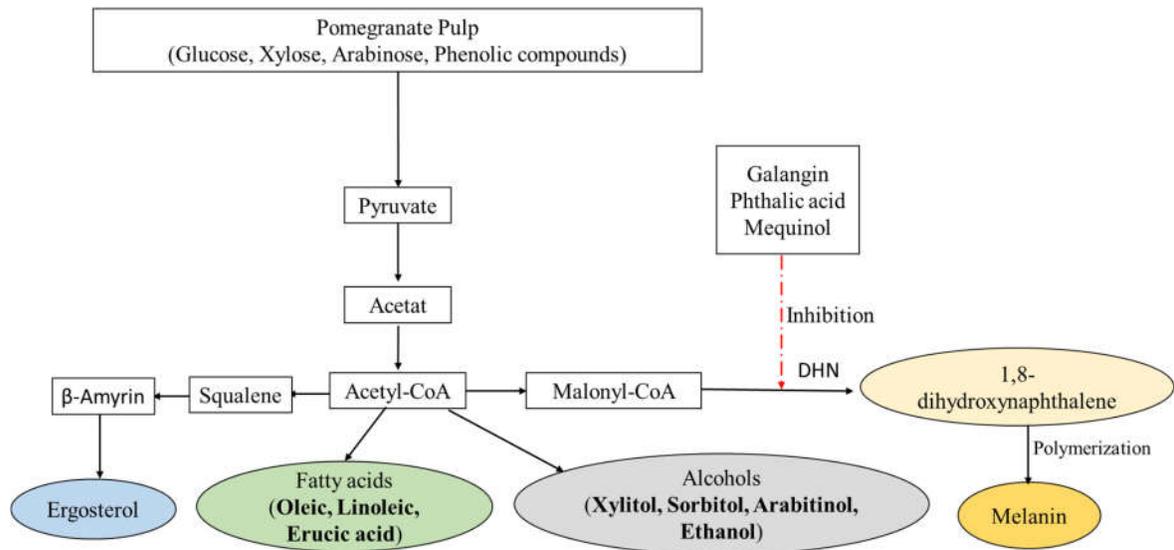




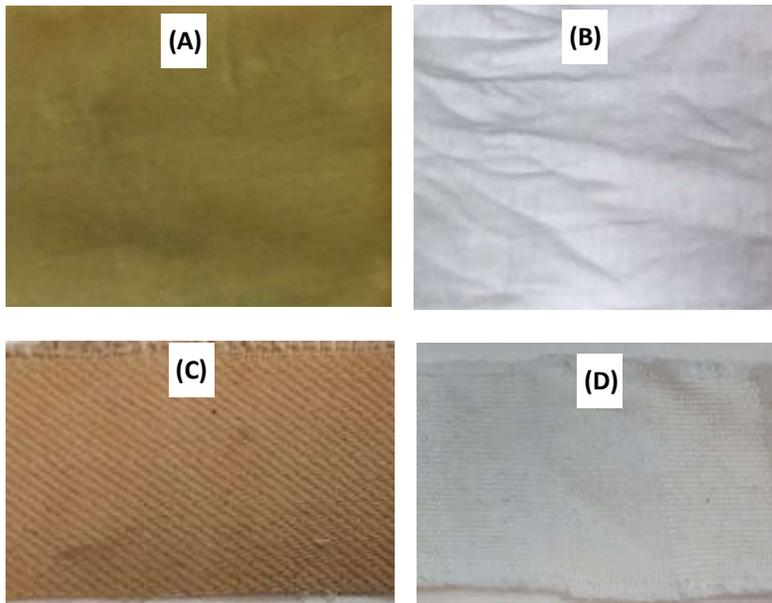
**Figure S1.** Dried **(A)** apple pulp, **(B)** black carrot pulp, **(C)** pomegranate pulp, **(D)** red beet pulp



**Figure S2.** Flow chart of experiments (A) Selection of fungal species and pulp type, (B) Effect of fermentation strategy and incubation period, (C) Effect of substrate particle size, (D) Effect of initial substrate pH, (E) Pigment production at optimal conditions



**Figure S3.** Potential metabolic pathway of melanin production by *Aspergillus carbonarius* from pomegranate pulp (adapted from Vadlapudi et al., 2017)



**Figure S4.** Images of (A) dyed and (B) undyed fabric pieces without mordanting, (C) dyed fabric pieces with mordanting, (D) undyed fabric pieces with mordanting (Dyeing of cotton fabric made with a fungal pigmented extract obtained by cultivation of *Aspergillus carbonarius* during 15 days on pomegranate pulp)